

## **AIR FILTRATION IN HVAC SYSTEMS**

GENERAL PRODUCT BROCHURE





With more than 30 years of experience, Mikropor is the world's leading air filter manufacturer, steering the industry with its innovative products. Mikropor produces Atmospheric Air Filters and Compressed Air Systems for various industries, providing integrated and customer-specific filtration solutions for its customers. Catering customers all around the globe, Mikropor utilizes cutting edge technology in its production and performs varied test procedures to ensure that quality is never compromised and that customer expectations are exceeded.

As air pollution threatens the earth today, Mikropor produces tomorrow's technologies with its innovative approach and endeavors to build a safer world with its environment-conscious identity.

# TEST STANDS

## Quality Commitment **>>>**

Our dedication to quality is one of the founding principles of Mikropor. This commitment is underscored by our ISO 9001 certified Quality Management System, which challenges us daily to continually improve our processes and approaches in order to deliver the best possible results. Mikropor utilizes a complete ASHRAE 52.2 Test Rig system and MPPS Test Rig system to develop new products for market needs, improve performance of existing products and to supply filters in accordance with design specifications.



ASHRAE 52.2 Test Rig

**The Flat Sheet Media Test Rig** is a modular filter testing system for flat filter media and mini-filters. This enables you to determine;

- Differential pressure curve
- Fractional efficiency
- Dust holding capacity





### **COARSE FILTERS** CLASS MERV 8



## MSKPN Series Class MERV 8

#### 2"- 4"- 6" Deep Frame

- Extended surface with both plastic and galvanized frame
- Self supported media without metal wire mesh
- Equal pleat distance and fully incinerable

#### MGP Series Class MERV 8 2"- 4" Deep Frame

- Extended surface prefilters with moisture resistant cardboard frame
- Self supporting polyster media

#### MPR Series Class MERV 8-9

- 100% Rigid polyester media Molded plastic frame







### **HIGH TEMPERATURE FILTERS** CLASS MERV 11-14

#### MPHT Series Class MERV 11-14 1.6" - 3" Deep Frame

#### - Mini pleated high temperature filters for automotive industry

- Used in painting cabins and drying ovens
- Silicone-free

#### MASHT Series Class MERV 11-14 12" Deep Frame

- Filters with corrugated aluminum separators
- Widely used in drying ovens

- Silicone-free





### FINE FILTERS CLASS MERV 9-16

### MPF Series Class MERV 11-15

#### 2"- 4"- 6" - 12" Deep Frame

- Mini pleated filters with metal, plastic or cardboard frame for extreme durability
- High efficiency
- Low resistant, microglass fiber media



#### MPS Series Class MERV 9-14

- Pocket filters with high density
- Ultra fine synthetic media
- Ultrasonically welded to avoid leaks
- Plastic or galvanized frame



#### MPG Series Class MERV 9-14

- Pocket filters with microglass media
- Low pressure drop due to unique pocket design
- Galvanized frame



### MV Series Class MERV 11-16 12" Deep Frame

- Very high dust holding capacity
- Low energy consumption
- UL Certificated





AIR FILTER UNIT
AS TO FLAMMABILITY ONLY
R39025

# MVX Series Class MERV 11-16 17" Deep Frame

- Max. air flow and service life
- Min. resistance

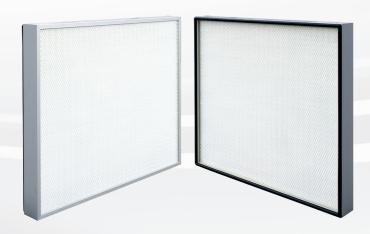


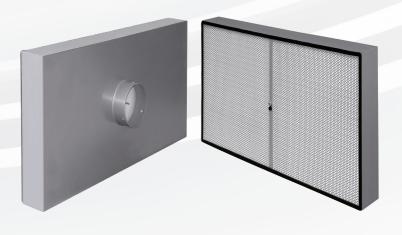
## **HEPA FILTERS** Class 95% @ 0.3um - 99.9995% @ MPPS / 95% - 99.999% @ 0.3um

- **HFN Series** 95% @ 0.3um 99.9995% @ MPPS **3.07" Deep Frame** 
  - Final filters in cleanrooms, operating rooms, laminar flow units etc.
  - Half round, flat or U-profile gasket options
  - Available in MDF aluminum frame



- Widely used in cleanrooms and laminar flow cabins
- Extruded anodised aluminum frame





- **HFH Series** 95% 99.999% @ 0.3um **11.5" Deep Frame** 
  - High efficiency absolute filters for air in ventilation systems
  - Longer service life
  - Less energy consumption
  - Frame and gasket variations available

- MVH Series 95% 99.999% @ 0.3um 11.5" Deep Frame
  - Final filters with max. air flow capacity and media area
  - Half round, flat or U-profile gasket options
  - Available in galvanized steel or plastic frame
  - UL Certificated





# HIGH TECHNOLOGY

# SEM/Scanning Electron Microscopy



Scanning Electron Microscopy (SEM) is utilized in determining of surface characteristics of newly developed materials. On nano-coated surfaces, uniform and continuous filament formations, where no drop defects occur, are desired. By means of the SEM instrument, having 1.000.000x magnification, morphology of nanofibers can easily be examined. EDX is the technique utilized in order to define elemental composition on any sample or on a respective small area on a sample. EDX analysis in the electron microscope is performed by exposing the sample to a scanning electron beam. Thus, elemental composition of the sample can be determined.

## 3D/ Printing System

The 3D printer produces prototypes of designed products faster and with lower cost by utilizing layered production technology.



# NANO/ Nano Coating System

Filter materials can be coated with fibers in nano scale through a nanofiber coating machine that utilizes the electrospinning method. Durable and highly efficient filter material can be further improved by performing nanofiber coating on the material.

It is expected for the nanofiber coating to be evenly distributed over the filter material and for the filter to have low pressure drop and high efficiency.



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